

## ABSTRACT

A hook switch circuit is shown wherein two high-voltage bipolar transistors, a PNP transistor Q1 and a NPN transistor Q2, that are connected in a regenerative feedback manner to form a bi-stable latch. The regenerative structure permits the use of low beta transistors that may be turned on with a low control current, but still conduct a sufficient off-hook current. Also shown is a polarity steering regenerative switch (MP1, MP2) that provides a power supply voltage from a telephone line pair and may be adapted for a polarity signal and can be combined with a current mirror (MP7) to produce a current signal proportional to the line voltage (LVI).